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APPENDIX A
CORRESPONDENCE WITH PADEP

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DEC 22 2016

Mr. Terry Barrett
Remediation Projects Manager
Trinity Industries, Inc.
2525 Stemmons Freeway
Dallas, TX 75207

Re: "Updated Manhole/Sewer Abandonment and Supplemental Investigation"
Trinity Industries Plant 102S RR Cars Mfg.
eFACTS PF# 731732
eFACTS Activity #41404
100 York Street
Hempfield Township, Mercer County

Dear Mr. Barrett:

The Commonwealth of Pennsylvania Department of Environmental Protection (Department) has reviewed the document titled, Updated Manhole/Sewer Abandonment and Supplemental Investigation (July 2016 Report) for the property referenced above. The July 2016 Report was prepared by Golder Associates, Inc. and submitted to the Department in accordance with the December 21, 2006 Consent Order and Agreement between the Department and Trinity Industries, Inc. (Consent Order). The purpose of the July 2016 Report was to conclude the ongoing investigation and abandonment of relic sewer systems discovered on the property during implementation of the Act 2 Cleanup Plan that was approved by the Department on May 24, 2013.

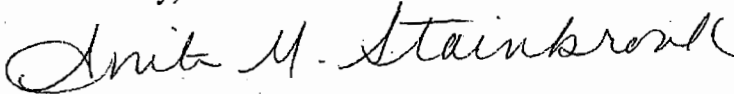
Based upon the July 2016 Report and the supplemental investigation performed on behalf of Trinity Industries, Inc. regarding the sewer systems discovered on the property, the Department has determined that further investigation is unnecessary. Information obtained and conclusions reached by you in this supplemental investigation should be incorporated in any Final Report submitted for the South Plant.

Please be advised that because the sewer line discharges into the Greenville sanitary sewer, Trinity Industries, Inc. may be considered an industrial contributor to the Greenville Sanitation Department's sewer system. The Department will make note of the discharge in future relevant permitting actions regarding the Greenville Sanitation Department. Accordingly, you should review the discharge of the sewer line represented by manholes MH-2 and MH-6 with Greenville's Sanitation Department. The Greenville Sanitation Department may require a Non-Domestic Wastewater Discharge Permit for the discharge.

DEC 22 2016

Thank you for your cooperation in working with the Department in the remediation of this site. If you have any questions or need further information regarding this matter, please contact John O'Hara by e-mail at jooohara@pa.gov or by telephone at 814.332.6978.

Sincerely,



Anita M. Stainbrook
Environmental Program Manager
Environmental Cleanup and Brownfields Program

cc: Joseph B. Gormley, Jr., P.E.
Grant Dufficy
Brian P. Trulear
John Holden (DEP)
Justin Dickey (DEP)
Doug Moorhead (DEP)
File

AMS:JWO:keb



pennsylvania

DEPARTMENT OF ENVIRONMENTAL
PROTECTION

MEMO

TO Anita M. Stainbrook
Environmental Program Manager
Environmental Cleanup and Brownfields Program
Northwest Regional Office

FROM John O'Hara, P.G.
Licensed Professional Geologist Manager
Environmental Cleanup and Brownfields Program
Land Recycling Section
Northwest Regional Office

DATE December 5, 2016

RE ECP – Land Recycling Program
Act 2 Technical Memo Summary
Updated Manhole/Sewer Abandonment and Supplemental Investigation, dated July 27, 2016
Trinity Industries Plant 102S Railroad Cars Mfg. Hempfield
eFACTS PF# 731732
eFACTS Activity #41404
Hempfield Township, Mercer County

Property Owner Name and Site Address: Trinity Industries, Inc., 2525 Stemmons Freeway, Dallas, TX 75207

Act 2 Standard(s) Sought: As established in December 21, 2006 Consent Order and Agreement (CO&A).

Property Size: 53 Acres

Project Site Regulatory History:

On April 4, 2006, the Attorney General of Pennsylvania filed criminal charges against Trinity Industries, Inc. (Trinity) in the Mercer County Court of Common Pleas concerning activities at the North Plant and for a sister facility in Hempfield Township, Mercer County (the subject of this memorandum), also owned and operated by Trinity (from 1989 to present). These activities caused the release of hazardous substances at both the North and South plants. As a condition of the resolution of criminal charges and to settle civil matters between Trinity and the

Pennsylvania Department of Environmental Protection (Department), Trinity entered into a Consent Order and Agreement (CO&A) with the Department on December 21, 2006. The CO&A required Trinity to remediate releases of hazardous substances at the North and South plants in accordance with the Land Recycling Program's Act 2 of 1995, as directed by all schedules and work plans submitted in accordance with the CO&A and approved by the Department. Notably, the CO&A places limits on the Act 2 standards that can be selected by Trinity for off-site contamination; specifically, Paragraph 6(b) requires that Trinity must meet either the Act 2 Background Standard or the residential Act 2 Statewide Health Standard for contamination that has migrated off-site. Paragraph 6(f) further restricts the choice of Act 2 Statewide Health Standards to those developed for used aquifers.

Project Site Land Recycling History:

The subject facility of this memorandum is the South Plant located at 100 York Street in Hempfield Township, Mercer County, Pennsylvania, located approximately 0.25 miles south of the North Plant which is in the City of Greenville (Figure 1).

On May 5, 2014, during Trinity's implementation of activities in accordance with the Cleanup Plan (approved by the Department on May 24, 2013), the Department noted a manhole not identified in the Remedial Investigation report or the Cleanup Plan. Due to concern that this discovery may indicate a previously unknown contaminant migration pathway, the Department requested, by November 19, 2014 letter, that Trinity perform supplemental investigation of the manhole in accordance with the CO&A.

In response to the Department's November 19, 2014 letter, Trinity submitted the June 19, 2015 Supplemental Manhole/Sewer Investigation Report, received by the Department on June 22, 2015. This report documented additional manholes, catch basins, and sewer piping not identified in the approved Remedial Investigation Report and Cleanup Plan. Consequently, the Department required additional investigative and remedial activities to address these previously unknown sewer systems. The Department, on September 24, 2015, approved the June 19, 2015 report with the requirement that Trinity submit a follow-up report documenting the findings of the additional investigation/activities proposed in the June 19, 2015 report.

In response to the Department's September 24, 2015 letter, Trinity conducted additional investigation/remedial activities and submitted the follow-up report, Manhole/Sewer Abandonment and Supplemental Investigation Report, dated December 7, 2015 and received by the Department on December 8, 2015 (December 7, 2015 Report). The December 7, 2015 Report describes the investigation and abandonment procedures that comprise the work completed by Golder Associates, Inc. (Golder) on behalf of Trinity in response to the Department's letter of September 24, 2015 for the South Plant and is the subject of this memorandum.

Finally, on July 28, 2016, the Department received the Updated Manhole/Sewer Abandonment and Supplemental Investigation (2016 Report). The 2016 Report was reviewed in context with the previous reports as discussed in this memorandum.

The manhole/sewer systems identified during Trinity's supplemental investigations are depicted in Figure 2. The manhole identified as MH-1 is the one discovered during the Department's May 5, 2014 site visit. The sewer system identified as associated with this manhole is depicted by orange highlight. In addition, Trinity discovered additional manholes and catch basins associated with another previously unknown sewer system (depicted in by green highlight on Figure 2).

Site Findings:

The December 7, 2015 Report documented two previously unknown sewer systems:

- The system associated with MH-1 and MH-3; and
- The system associated with MH-2 and MH-6.

The activities documented in the December 7, 2015 Report involved further investigation of the extent of these systems, characterization of water and sediment within them, determination of integrity of the systems, and the ultimate discharge points of these systems. These activities were conducted to determine if these systems represented current or historic pathways for offsite contaminant transport.

MH-2/MH-6 System:

Investigation of the MH-2/MH-6 system confirmed low levels of the PCB Aroclor 1254 in two water samples taken from MH-2 (0.48 and 0.33 ug/L). While these water samples exceed surface water criteria, the report concluded that this sewer system does not drain contaminated portions of the facility. Further, this system appears to have no connection to Mathay Run or the Old Erie Extension Canal, but rather, appears to discharge into a sanitary sewer line of the Borough of Greenville (depicted in yellow on Figure 2). Based on these observations, Trinity concluded that there is no connection with these nearby surface water bodies. However, the origin of the PCBs detected in the water samples from MH-2 is unknown. The potential for this contamination to impact the Greenville waste water treatment plant (GWTP) was not addressed in the December 7, 2016 Report.

MH-1/MH-3 System:

MH-1 was the manhole discovered during the Department's May 5, 2014 site visit. This appears to be a much older system as indicated by the brick and mortar construction of the manholes (MH-1 and MH-3) and the clay pipe connecting these manholes as well as the catch basin. Both the June 19, 2015 and December 7, 2015 reports documented that there appeared to be the remnants of a beaver den in MH-1, suggesting a connection with the nearby Old Erie Extension Canal. If such a connection exists (or existed), then a potential complete pathway for site related contamination could exist from contaminated portions of the South Plant to the Old Erie Extension Canal. While the June 19, 2015 report documented Trinity's mass balance calculation suggesting that current concentrations of site related COCs in MH-1 would not adversely impact surface water in excess of ambient water criteria, the impact of historic releases and the potential impact to sediment in the Old Erie Extension Canal had not been ruled out.

Conclusions and Recommendations:

While a complete historic pathway from the MH-1/MH-3 sewer system to the Old Erie Extension Canal has not been ruled out by the supplemental investigations performed by Trinity, neither does the Department have proof of the historic existence of such a pathway. The techniques employed by Trinity, in my judgment, are sufficient to eliminate the potential future pathway to surface water bodies via the historic sewer systems. However, this does not eliminate the possibility site related contamination in Mathay Run or the Old Erie Extension Canal. The Department could, in accordance with Paragraph 7(h) and (i) of the CO&A, require additional work by Trinity to confirm that historic sewer conveyances did not provide a complete pathway to these surface water bodies. The sewer investigative techniques used by Trinity are probably representative of the best that can be done to determine the locations of sewer lines, catch basins, manholes and outfalls. Trinity could sample the surface water bodies at key locations upstream, adjacent to, and downstream of the facility. However, interpretation of results would be problematic due to the storm water discharges into the Old Erie Extension Canal from the City of Greenville, which likely would have contributed similar contaminants to stream sediments (e.g., semi-volatile organics and metals) and it would be difficult, at best, to conclusively demonstrate that the South Plant contributed contamination to Mathay Run or the Old Erie Extension Canal.

Trinity's investigations, as summarized in the December 7, 2015 Report, identified PCB contamination associated with the MH-2/MH-6 sewer system, a sanitary lateral connection to the Greenville sanitary system. The GWTP discharges to the Shenango River, so the contamination identified in the MH-2/MH-6 system has the potential to impact the Shenango River. The December 7, 2015 Report did not assess potential impact to the GWTP or the Shenango River. In addition, the origin of this contamination has not been determined and sources have not been characterized. In response to this concern, Trinity performed a supplementary investigation in accordance with Paragraphs 7(h) and (i) of the CO&A and submitted the results of this investigation to the Department in the aforementioned 2016 Report. The 2016 Report concluded that any discharge to the GWTP would not result in an instream violation due to site related contamination being discharged from the GWTP to the Shenango River.

Regulation of discharges to surface water is the responsibility of the Department's Clean Water Program (CWP). Therefore the Environmental Cleanup and Brownfields (ECB) requested CWP's co-review of the 2016 Report due to their jurisdiction and expertise in these matters. CWP's Justin Dickey, P.E., reviewed the report and provided an e-mail memorandum dated November 9, 2016. While not disputing the conclusions of the report concerning the potential for site related contaminants to impact the GWTP or the Shenango River, the memorandum provided the following recommendations:

- Trinity should review their discharge with Greenville's Sanitation Department as Trinity may be considered an industrial contributor which may require a Non-Domestic Wastewater Discharge Permit.
- The memorandum stated that the GWTP must adhere to applicable pretreatment requirements as coordinated with EPA, and that the Department, "...will consider the subject flows in our review of the next NPDES permit renewal application for the Authority STP including the review of PCB concentrations. Please note that no changes to the existing NPDES permit are required at this time."
- The memorandum recommended that GWTP and EPA be copied on the Department's response to the 2016 Report.

The CWP's e-mail memorandum is included as an attachment to this memo, and provides more detail concerning the Justin Dickey's review.

Summary:

Based on the Department's review of the report, I recommend no further investigation of the relic sewer systems on the Trinity South Plant. However, I do recommend conveying the Department's concerns regarding the potential permit requirements Trinity may need to address, and also advising Trinity that the Department's CWP will consider Trinity's discharge to the GWTP in their next review of that facility's discharge permit. The Department's response to the 2016 Report should be copied to EPA and Greenville's Sanitation Department, as recommended by the CWP.

DEP Contact: John O'Hara, P.G.

Phone: 814.332.6978

Site Contact: Terry Barrett, P.G.

Phone: 214.589.8409

Site Consultant: Joseph B. Gormley, Jr., P.E.

Phone: 856.793.2005

cc: File
Justin Dickey, P.E. (DEP)



June 14, 2013

Project No. 073-6009-100

Eric A. Gustafson
Regional Manager
Environmental Cleanup and Brownfields Program
Pennsylvania Department of Environmental Protection
230 Chestnut Street
Meadville, PA 16335

**RE: CONSTRUCTION SEQUENCING
PADEP APPROVAL WITH MODIFICATION
REVISED CLEANUP PLAN-SOUTH PLANT SITE
TRINITY INDUSTRIES, INC. FACILITY ID NO. 731732
BOROUGH OF GREENVILLE, MERCER COUNTY**

Dear Mr. Gustafson:

On behalf of Trinity Industries, Inc. (Trinity), Golder Associates Inc. (Golder) is submitting this letter to respond to the Pennsylvania Department of Environmental Protection's (PADEP) May 24, 2013 letter approving with modifications the February 28, 2013 Revised Cleanup Plan for the South Plant Site (Site) located at 100 York Street in Greenville, Pennsylvania. In its approval letter, PADEP required Trinity to submit a corrected Section 5.8 Construction Sequencing of the Revised Cleanup Plan to eliminate an erroneous reference to Step 6b. The corrected section is attached.

Trinity and Golder believe this attachment addresses PADEP's May 24, 2013 request. If you have any questions or comments regarding the above, please do not hesitate to contact Terry Barrett, of Trinity, or Joe Gormley.

GOLDER ASSOCIATES INC.

Joseph B. Gormley, Jr., P.E.
Senior Consultant, Project Coordinator

Mark Haney
Project Director

cc: Terry Barrett, P.G., Trinity Industries, Inc. (Electronic Copy)
Grant Dufficy, USEPA (Electronic Copy)
John O'Hara, DEP (Electronic Copy)
Kristie Shimko, DEP (Electronic Copy)
Clem DeLatre, DEP (Electronic Copy)
Doug Moorhead, DEP (Electronic Copy)
Frank Nemec, DEP Central Office (Electronic Copy)
Kim Bontrager, DEP

JBG/MH

Attachment

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200 Century Parkway, Suite C
Mt. Laurel, NJ 08054 USA

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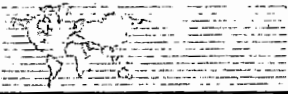


methods for conducting the work. As well as satisfying the minimum requirements of OSHA 1910 and 1920, key elements of the HSP will include dust and emission controls, and associated air monitoring.

5.8 Construction Sequencing

The proposed sequence for construction activities is shown on Drawing 14 and listed below:

1. Notify local and state regulators of pre-construction meeting 1 week before meeting.
2. Hold pre-construction meeting.
3. Install temporary erosion control measures, including but not limited to stabilized construction entrance and silt fence.
4. Install temporary access roads.
5. Conduct clearing operations within 6-inches of the existing grade in the excavation areas and the disposal area, mulching yard waste in the laydown area designated for such. Yard waste may be used for temporary erosion control and stabilization during construction.
6. Construct the sediment basin adjacent to the Disposal Area.
7. Construction the Diversion Channel, around the Disposal Area. A pump bypass system may be required for the construction of this diversion and again during the construction of the engineered cap on the Disposal area.
8. For the excavation areas:
 - A. The impacted soil/historic fill with total lead concentrations greater than 1,000 mg/kg will be pre-condition in-situ, tested for conformance with off-Site disposal criteria, excavated to the initial depths shown in the Cleanup Plan, and staged on-Site pending off-Site disposal. Upon receipt of favorable testing results, the soils will be disposed off-Site in a permitted disposal facility.
 - B. The impacted soil/historic fill with VOC impacts greater than Soil to Groundwater MSCs will be excavated to the initial depths shown in the Cleanup Plan, and staged on-Site pending off-Site disposal. Upon receipt of favorable testing results, the soils will be disposed off-Site in a permitted disposal facility.
 - C. The remaining impacted soil/historic fill with total lead exceeding 450 mg/kg will be excavated to the initial depths shown in the Revised Cleanup Plan, staged, and tested for disposal. Upon receipt of the testing results, the soil/historic fill will be disposed off-Site (if failing the TCLP test) or disposed in the disposal area (if passing the TCLP test).
 - D. The soil/historic fill in the side-walls and bottom of the excavation shall be sampled and tested in accordance with the post-excavation sampling protocol in Specification 02221. If the soil/historic fill is shown to have constituents of concern (COCs) at concentrations above action level, an additional two feet of material will be excavated, in accordance with 8b above.
 - E. When the analytical testing of the soil/historic fill remaining in the excavation indicate that COCs are below action levels, a marker geotextile shall be placed in the excavation and the area restored in accordance with the Revised Cleanup Plan, by backfilling and seeding, or backfilling and paving.
 - F. The excavation areas shall be excavated and restored in the following order: Downgradient SW1, Downgradient SW2, Western Drainage Ditch, Southern



Drainage Ditch, select locations in the Former Disposal Areas, and Former Operations Areas.

- G. The temporary access roads will be removed as areas are excavated and restored. If there is spillage from the haul truck tires on the access roads, the material removed from these access roads will be disposed in the Former Disposal Areas.
- 9. For the Former Disposal Areas:
 - A. The stumps shall be removed to two-feet below the finished subgrade of the engineered cap to be placed atop the area.
 - B. Railroad ties and concrete rubble/riprap stockpiled in the Former Disposal Areas shall be buried in the Former Disposal Areas such that they are two-feet below the finished subgrade of the engineered cap or possibly hauled away as site clearing debris
 - C. Material removed from the excavation areas which pass the TCLP test may be disposed in the Former Disposal Areas. This material shall be placed in 12-inch thick compacted, horizontal lifts and shall be compacted to 95 percent of the maximum dry density as determined by the Standard Proctor Test (ASTM D698).
 - D. Upon placement of the final excavated impacted soil/historic fill from the Excavation Areas on-Site, the Disposal Area shall be graded such that no area has a slope steeper than 3H:1V and less than 2 percent.
 - E. The engineered cap may be constructed.
- 10. Areas disturbed during construction shall be stabilized within 14 days of achieving final grade.
- 11. This sequence may be adjusted in the field by the Contractor based upon actual conditions encountered, with the approval of the Trinity and/or its designated representative.

5.9 Construction Quality Assurance

The Construction Quality Assurance (CQA) Plan is presented in Appendix F. The CQA Plan describes the procedures to be followed during CQA monitoring of activities associated with the construction of soil and geosynthetic components of the cap system for the Former Disposal Areas. The CQA Plan is intended as an implementation document for CQA monitoring personnel.



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DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHWEST REGIONAL OFFICE

May 24, 2013

CERTIFIED MAIL NO. 7012 3050 0002 4113 0061

Mr. Terry Barrett
Remediation Projects Manager
Trinity Industries, Inc.
2525 Stemmons Freeway
Dallas, TX 75207

Re: Approval with Modifications - Revised Cleanup Plan - South Plant Site
Trinity Industries, Inc. - South Plant
eFACTS PF No. 731732
eFACTS Activity No. 41404
100 York Street, Greenville
Hempfield Township, Mercer County

Dear Mr. Barrett:

The Department of Environmental Protection (Department) has received and reviewed the February 28, 2013, document submitted by Trinity Industries, Inc. (Trinity) titled "Revised Cleanup Plan - South Plant Site" for the property located at 100 York Street, Greenville. The Revised Cleanup Plan was prepared by Golder Associates, Inc. and submitted to the Department in accordance with the December 21, 2006, Consent Order and Agreement between Trinity and the Department ("Consent Order") and the Land Recycling and Environmental Remediation Standards Act (Act 2). The Revised Cleanup Plan is a "cleanup plan" as described in Section 304 of Act 2.

The Department hereby approves the Revised Cleanup Plan with modification, as indicated in Items 1 - 4, below, in accordance with Paragraph 17 of the Consent Order and the provisions of Act 2:

1. The Revised Cleanup Plan, in Appendix J, reported the results of an investigation conducted to determine what impact, if any, site related Contaminants of Concern (COCs) and/or buried wastes are having on surface water. During the Department's May 23, 2013, conference call with Trinity and their representatives, it was agreed that Trinity will model the impact of the diffuse groundwater discharge to surface water in accordance with 25 Pa. Code §§250.309(c) and 250.406(c) for all site COCs that exceed their Practical Quantitation Limit (PQL). The Revised Cleanup Plan is modified to require Trinity complete the modeling and provide the modeling results to the Department by June 14, 2013.

2. Appendix E includes a monitoring program for future sampling events, but omits MW-15 and the additional surface water sampling locations included in Appendix J. Appendix E of the Revised Cleanup Plan is modified to include MW-15 and the additional surface water locations identified in Appendix J.
3. Section 5.8 Construction Sequencing, Item 8D refers to Step 6b which does not exist. Section 5.8 Construction Sequencing is modified to require Trinity to submit a corrected Section 5.8 by June 14, 2013.
4. The Site Inspection Checklist in Appendix G should include all relevant information for the diversion and collection channels requiring inspection. The Revised Cleanup Plan is modified to require Trinity to supply a complete Site Inspection Checklist with the Final Report.

General Comments Not Related to the Above-Mentioned Modifications:

Trinity is reminded they are limited by Paragraph (6)(b) of the Consent Order to demonstrate either the Background or Residential Used Aquifer Statewide Health Standard for groundwater contamination at the property line and beyond and that an Act 2 demonstration is required for all COCs found to exceed the PQL.

Although proposed post remediation care requirements are documented in the Cleanup Plan, the Department reserves their discretion to approve/disapprove any post remediation care plans until the submittal of the Final Report in accordance with 25 Pa. Code §§250.411 and 250.204(g).

This approval with modification is contingent upon Trinity, by June 14, 2013, submitting an acceptable report, as required in Item 1, above, to the Department which shows no impacts to surface water in excess of the applicable surface water criteria referenced in 25 Pa. Code §§250.309 and 250.406. If Trinity fails to submit an acceptable report or if the modeling

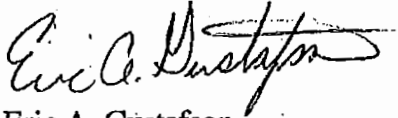
Mr. Terry Barrett

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May 24, 2013

required in Item 1 demonstrates impacts to surface water in excess of the applicable surface water criteria referenced in 25 Pa. Code §§250.309 and 250.406, this approval with modification becomes null and void and Trinity will be in Breach of the Consent Order.

Sincerely,



Eric A. Gustafson
Regional Manager
Environmental Cleanup and Brownfields Program

cc: Joseph Gormley, Jr., P.E.
Grant Dufficy - USEPA
John O'Hara, P.G. - DEP
Kristie Shimko - DEP
Clem DeLattre - DEP
Doug Moorehead - DEP
Kim Bontrager - DEP
File

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